TEJUS
CONSULTANTS

BITUMEN CONTENT AND GRADATION DETERMINATION OF DENSE BITUMINOUS MACADAM MIX

Name of Work	:	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.
Client	:	Bruhat Bengaluru Mahanagara Palike
Consultant	:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	:	Sri.A G Narayana Swamy.
Date of Testing	:	12-01-2022
Type of Mix	:	DBM
Sample I/D	:	DBM-5

DETERMINATION OF BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before extraction, g	895	934
2. Weight of Mixture after extraction, g	856	894
3. Weight of Bitumen	39	40
4. Weight of filter paper before extraction, g	2.00	2.00
5. Weight of filter paper after extraction, g	4.00	4.00
6. Weight of fines, g	2.00	2.00
7. Weight of Bitumen & fines	41.00	42.00
8. Bitumen content in %	4.58	4.50
9. Average Bitumen content in %	4.54	
10. Minimum Bitumen content in %	4.50	

GRADATION FOR DBM AFTER EXTRACTION

(As per MORT&H 500-10,Grading-2)

Sample Location:	Cross Road from Agrahara layout Road to Thirumenahalli Arch Road	**Date of Sampling:**	12-01-2022
		Date of testing:	12-01-2022
Type of material & Purpose:	DBM	**Oven Dry Wt.(gms):**	856

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
37.50	0.0	0.0	0.00	100.00	100.00
26.50	42.0	42.0	4.91	95.09	90-100
19.00	128.0	170.0	19.86	80.14	71-95
13.20	118.0	288.0	33.64	66.36	56-80
4.750	160.0	448.0	52.34	47.66	38-54
2.360	105.0	553.0	64.60	35.40	28-42
0.300	183.0	736.0	85.98	14.02	7-21
0.075	65.0	801.0	93.57	6.43	2-8
Pan	62.0	863.0			
Total	856.0				

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4. The material used in the site satisfied the standard of MORTH's 5th revision and hence can be used in the work.

Consultant's Representative

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

TEJUS
CONSULTANTS

BITUMEN CONTENT AND GRADATION DETERMINATION OF DENSE BITUMINOUS MACADAM MIX

Name of Work	:	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.
Client	:	Bruhat Bengaluru Mahanagara Palike
Consultant	:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	:	Sri.A G Narayana Swamy.
Date of Testing	:	12-01-2022
Type of Mix	:	DBM
Sample I/D	:	DBM-6

DETERMINATION OF BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before extraction, g	882	936
2. Weight of Mixture after extraction, g	844	895
3. Weight of Bitumen	38	41
4. Weight of filter paper before extraction, g	2.00	2.00
5. Weight of filter paper after extraction, g	4.00	4.00
6. Weight of fines, g	2.00	2.00
7. Weight of Bitumen & fines	40.00	43.00
8. Bitumen content in %	4.54	4.59
9. Average Bitumen content in %	4.56	
10. Minimum Bitumen content in %	4.50	

GRADATION FOR DBM AFTER EXTRACTION

(As per MORT&H 500-10,Grading-2)

Sample Location:	Eshwara Condiments Side Road (Medows Appartment Opp)	**Date of Sampling:**	12-01-2022
		Date of testing:	12-01-2022
Type of material & Purpose:	DBM	**Oven Dry Wt.(gms):**	844

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
37.50	0.0	0.0	0.00	100.00	100.00
26.50	41.0	41.0	4.86	95.14	90-100
19.00	133.0	174.0	20.62	79.38	71-95
13.20	113.0	287.0	34.00	66.00	56-80
4.750	165.0	452.0	53.55	46.45	38-54
2.360	99.0	551.0	65.28	34.72	28-42
0.300	146.0	697.0	82.58	17.42	7-21
0.075	98.0	795.0	94.19	5.81	2-8
Pan	49.0	844.0			
Total	844.0				

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Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

AE

Consultant's Representative

TEJUS
CONSULTANTS

DETERMINATION OF RATE OF SPREAD TACK COAT				
Name of Work :	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.			
Client :	BRUHAT BANGALORE MAHANAGARA PALIKE			
Consultant :	M/s Tejus Consultants			
Contractor :	Sri.A G Narayana Swamy.			
Date of Testing :	12-01-2022			
Type of Mix :	Tack coat			
Sample I/D :	5			
Location :	Cross Road from Agrahara layout Road to Thirumenahalli Arch Road			
Determination	**Unit**	**Test No**		
		1	**2**	**3**
Loacation	**Chainage**	**@104**	**@228**	**@334**
Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30	0.30 x .30
Area of Plate (a)	Sq.mtr	0.09	0.09	0.09
Initial Wt of empty Plate (b)	Kg	0.781	0.805	0.778
Final weight of plate after application of tack Coat (c)	Kg	0.804	0.828	0.801
Weight of tack Coat (d=c-b)	Kg	0.023	0.023	0.023
Rate of spread of tack coat	Kg/sq.m	0.254	0.254	0.254
Average	Kg/sq.m	0.254		
Specified Limit	Kg/sq.m	**0.250 Kg/sq.m**		

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Asst. Executive Engineer
Project Division
Yelahanka Zone - 02
BBMP, Bangalore - 92

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Consultant's Representative

TEJUS CONSULTANTS

DETERMINATION OF RATE OF SPREAD TACK COAT

Name of Work :	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.
Client :	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant :	M/s Tejus Consultants
Contractor :	Sri.A G Narayana Swamy.
Date of Testing :	12-01-2022
Type of Mix :	Tack coat
Sample I/D :	6
Location :	Eshwara Condiments Side Road (Medows Appartment Opp)

Determination	**Unit**	**Test No**		
		1	**2**	**3**
Loacation	**Chainage**	**@58**	**@102**	**@154**
Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30	0.30 x .30
Area of Plate (a)	Sq.mtr	0.09	0.09	0.09
Initial Wt of empty Plate (b)	Kg	0.728	0.763	0.772
Final weight of plate after application of tack Coat (c)	Kg	0.751	0.786	0.795
Weight of tack Coat (d=c-b)	Kg	0.023	0.023	0.023
Rate of spread of tack coat	Kg/sq.m	0.253	0.252	0.253
Average	Kg/sq.m	0.253		
Specified Limit	Kg/sq.m	**0.250 Kg/sq.m**		

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Asst. Executive Engineer Project Division Yelahanka Zone BBMP, Bangalore-92

Authorised Signatory

TEJUS
CONSULTANTS

BITUMEN CONTENT AND GRADATION DETERMINATION OF BITUMINOUS CONCRETE MIX		
Name of Work	:	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.
Client	:	Bruhat Bengaluru Mahanagara Palike
Consultant	:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	:	Sri.A G Narayana Swamy.
Date of Testing	:	13-01-2022
Type of Mix	:	BC
Sample I/D	:	BC5

DETERMINATION OF BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before extraction, g	966	927
2. Weight of Mixture after extraction, g	915	878
3. Weight of Bitumen	51	49
4. Weight of filter paper before extraction, g	2.00	2.15
5. Weight of filter paper after extraction, g	4.00	4.00
6. Weight of fines, g	2.00	1.85
7. Weight of Bitumen & fines	53.00	50.85
8. Bitumen content in %	5.49	5.49
9. Average Bitumen content in %	**5.49**	
10. Minimum Bitumen content in %	**5.40**	

GRADATION FOR BC AFTER EXTRACTION

(As per MORT&H 500-18,Grading-2)

Sample Location:	Cross Road from Agrahara layout Road to Thirumenahalli Arch Road	Date of Sampling:	13-01-2022
		Date of testing:	13-01-2022
Type of material & Purpose:	BC	Oven Dry Wt.(gms):	915.0

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
19.00	0	0	0.00	100.00	100.00
13.20	82	82.0	8.96	91.04	79 - 100
9.50	109	191.0	20.87	79.13	71 - 95
4.75	96	287.0	31.37	68.63	53 - 71
2.360	120	407.0	44.48	55.52	42 - 58
1.180	118	525.0	57.38	42.62	34 - 48
0.600	93	618.0	67.54	32.46	26 - 38
0.300	75	693.0	75.74	24.26	18 - 28
0.150	70	763.0	83.39	16.61	12 - 20
0.075	95	858.0	93.77	6.23	4 - 10
Pan	57.0	915.0			
Total	915.0				

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Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

Consultants Representative

TEJUS
CONSULTANTS

BITUMEN CONTENT AND GRADATION DETERMINATION OF BITUMINOUS CONCRETE MIX

Name of Work	:	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.
Client	:	Bruhat Bengaluru Mahanagara Palike
Consultant	:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	:	Sri.A G Narayana Swamy.
Date of Testing	:	13-01-2022
Type of Mix	:	BC
Sample I/D	:	BC6

DETERMINATION OF BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before extraction, g	889	912
2. Weight of Mixture after extraction, g	843	864
3. Weight of Bitumen	46	48
4. Weight of filter paper before extraction, g	2.00	2.15
5. Weight of filter paper after extraction, g	4.10	4.00
6. Weight of fines, g	2.10	1.85
7. Weight of Bitumen & fines	48.10	49.85
8. Bitumen content in %	5.41	5.47
9. Average Bitumen content in %	**5.44**	
10. Minimum Bitumen content in %	**5.40**	

GRADATION FOR BC AFTER EXTRACTION
(As per MORT&H 500-18,Grading-2)

Sample Location:	Eshwara Condiments Side Road (Medows Appartment Opp)	Date of Sampling:	13-01-2022
		Date of testing:	**13-01-2022**
Type of material & Purpose:	BC	Oven Dry Wt.(gms):	843.0

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
19.00	0	0	0.00	100.00	100.00
13.20	85	85.0	10.08	89.92	79 - 100
9.50	112	197.0	23.37	76.63	71 - 95
4.75	114	311.0	36.89	63.11	53 - 71
2.360	123	434.0	51.48	48.52	42 - 58
1.180	110	544.0	64.53	35.47	34 - 48
0.600	65	609.0	72.24	27.76	26 - 38
0.300	69	678.0	80.43	19.57	18 - 28
0.150	42	720.0	85.41	14.59	12 - 20
0.075	73	793.0	94.07	5.93	4 - 10
Pan	50.0	843.0			
Total	843.0				

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Asst. Executive Engineer
Project Div. No.
Yelahanka Zone
BBMP, Bangalore-9

Consultant's Representative

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DETERMINATION OF RATE OF SPREAD TACK COAT

Name of Work :	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.
Client :	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant :	M/s Tejus Consultants
Contractor :	Sri.A G Narayana Swamy.
Date of Testing :	13-01-2022
Type of Mix :	Tack coat
Sample I/D :	5
Location :	Cross Road from Agrahara layout Road to Thirumenahalli Arch Road

Determination	**Unit**	**Test No**		
		1	**2**	**3**
Location :	**Chainage**	**@122**	**@215**	**@333**
Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30	0.30 x .30
Area of Plate (a)	Sq.mtr	0.09	0.09	0.09
Initial Wt of empty Plate (b)	Kg	0.756	0.796	0.785
Final weight of plate after application of tack Coat (c)	Kg	0.779	0.819	0.808
Weight of tack Coat (d=c-b)	Kg	0.023	0.023	0.023
Rate of spread of tack coat	Kg/sq.m	0.251	0.251	0.252
Average	Kg/sq.m	0.251		
Specified Limit	Kg/sq.m	**0.250 Kg/sq.m**		

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Project Division
Zone
BBMP, Bangalore - 92

Authorised Signatory

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DETERMINATION OF RATE OF SPREAD TACK COAT				
Name of Work :	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.			
Client :	BRUHAT BANGALORE MAHANAGARA PALIKE			
Consultant :	M/s Tejus Consultants			
Contractor :	Sri.A G Narayana Swamy.			
Date of Testing :	13-01-2022			
Type of Mix :	Tack coat			
Sample I/D :	6			
Location :	Eshwara Condiments Side Road (Medows Appartment Opp)			
Determination	**Unit**	**Test No**		
		1	2	3
Location :	**Chainage**	**@38**	**@92**	**@149**
Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30	0.30 x .30
Area of Plate (a)	Sq.mtr	0.09	0.09	0.09
Initial Wt of empty Plate (b)	Kg	0.789	0.802	0.810
Final weight of plate after application of tack Coat (c)	Kg	0.812	0.825	0.833
Weight of tack Coat (d=c-b)	Kg	0.023	0.023	0.023
Rate of spread of tack coat	Kg/sq.m	0.253	0.252	0.253
Average	Kg/sq.m	0.253		
Specified Limit	Kg/sq.m	**0.250 Kg/sq.m**		

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Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Banguiore - 92

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Authorised Signatory

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TEJUS
CONSULTANTS

Project	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.
Client	Bruhat Bengaluru Mahanagara Palike
Consultant	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri.A G Narayana Swamy.

AGGREGATE IMPACT VALUE (IS: 2386 Part - 4)

Proposed Use	DBM	**Date of Sampling**	**12-02-2022**
Sample Location	At plant	**Date of Testing**	**12-02-2022**

Sl. No.	Description		Test No. 1	Test No. 2	Test No. 3	Spec Limit (%)
1	Wt. of stone pieces (dry) passing IS Sieve 12.5mm but retained in IS sieve 10mm (gm)	(Wa)	376.00	361.00	384.00	
2	Wt. of the fraction retained in IS sieve 2.36mm after the impact test (gm)	(Wb)	286.00	275.00	294.00	
3	Wt. of the fraction passed in IS sieve 2.36mm after the impact test (gm)	(Wc)	90.00	86.00	90.00	
4	Aggregate Impact Value (%)	(Wc/Wa)*100	23.94	23.82	23.44	
5	Average Aggregate impact value	(%)	23.73			Max - 30 %

Remarks : Satisfactory / Not Satisfactory

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Project Division
Yelahanka
BBMP, Bangalore - 92

Consultant's Representative

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CONSULTANTS

Project	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.
Client	Bruhat Bengaluru Mahanagara Palike
Consultant	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri.A G Narayana Swamy.

FLAKINESS AND ELONGATION INDICES (IS 2386, PART 1)

Type of Material		DBM		**Proposed Use**	**DBM**
Sample Location		At plant		**Date of Sampling**	**12-02-2022**
				Date of Testing	**12-02-2022**
Size of aggregate		**Flakiness Index**		**Elongation Index**	
Passing through IS sieve, mm	**Retained on IS sieve, mm**	**Total wt. of aggregate retained on sieves (A) gms.**	**Wt. of aggregate passing from Flakiness gauge (B) gms**	**Wt. of aggregate retained on Flakiness gauge (C) gms**	**Wt. of aggregate retained on Elongation gauge after retained on Flakiness gauge(D)gms**
63.0	50.0	0	0	0	0
50.0	40.0	0	0	0	0
40.0	31.5	7397	672	7066	343
31.5	25.0	4262	234	3568	285
25.0	20.0	2465	248	1865	220
20.0	16.0	1544	330	966	261
16.0	12.5	588	111	460	196
12.5	10.0	498	72	275	95
10.0	6.3	139	84	84	65
Total		**16893**	**1751**	**14284**	**1465**

Results

Flakiness Index(%):	10.37
Elongation Index(%):	10.26
Combined FI+EL (%)	20.62

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Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

Consultant's Representative

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Project	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.
Client	Bruhat Bengaluru Mahanagara Palike
Consultant	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri.A G Narayana Swamy.

AGGREGATE IMPACT VALUE (IS: 2386 Part - 4)

Proposed Use	BC	**Date of Sampling**	**14-02-2022**
Sample Location	At plant	**Date of Testing**	**14-02-2022**

Sl. No.	Description		Test No. 1	Test No. 2	Test No. 3	Spec Limit (%)
1	Wt. of stone pieces (dry) passing IS Sieve 12.5mm but retained in IS sieve 10mm (gm)	(Wa)	377.00	362.00	346.00	
2	Wt. of the fraction retained in IS sieve 2.36mm after the impact test (gm)	(Wb)	280.00	270.00	258.00	
3	Wt. of the fraction passed in IS sieve 2.36mm after the impact test (gm)	(Wc)	97.00	92.00	88.00	
4	Aggregate Impact Value (%)	(Wc/Wa)*100	25.73	25.41	25.43	
5	Average Aggregate impact value	(%)	25.53			Max - 30 %

Remarks : Satisfactory / Not Satisfactory

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Consultant's Representative

TEJUS
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Project	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.
Client	Bruhat Bengaluru Mahanagara Palike
Consultant	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri.A G Narayana Swamy.

FLAKINESS AND ELONGATION INDICES (IS 2386, PART 1)

Type of Material	BC		**Proposed Use**	**BC**
Sample Location	At plant		**Date of Sampling**	14-02-2022
			Date of Testing	14-02-2022

Size of aggregate		**Flakiness Index**		**Elongation Index**	
Passing through IS sieve, mm	**Retained on IS sieve, mm**	**Total wt. of aggregate retained on sieves (A), gms.**	**Wt. of aggregate passing from Flakiness gauge (B) gms**	**Wt. of aggregate retained on Flakiness gauge (C) gms**	**Wt. of aggregate retained on Elongation gauge after retained on Flakiness gauge(D)gms**
63.0	50.0	0	0	0	0
50.0	40.0	0	0	0	0
40.0	31.5	0	0	0	0
31.5	25.0	0	0	0	0
25.0	20.0	0	0	0	0
20.0	16.0	959	86	962	76
16.0	12.5	1309	112	1241	120
12.5	10.0	522	78	436	58
10.0	6.3	498	68	425	60
Total		**3288**	**344**	**3064**	**314**

Note: Minimum 200 Pcs should be taken on each fraction of test

Flakiness Index(%):	10.46
Elongation Index(%):	10.25
Combined FI+EL (%)	20.71

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Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

Consultant's Representative

TEJUS
CONSULTANTS

BITUMEN CONTENT AND GRADATION DETERMINATION OF DENSE BITUMINOUS MACADAM MIX

Name of Work	:	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.
Client	:	Bruhat Bengaluru Mahanagara Palike
Consultant	:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	:	Sri.A G Narayana Swamy.
Date of Testing	:	15-02-2022
Type of Mix	:	DBM
Sample I/D	:	DBM-1

DETERMINATION OF BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before extraction, g	896	933
2. Weight of Mixture after extraction, g	857	893
3. Weight of Bitumen	39	40
4. Weight of filter paper before extraction, g	2.00	2.00
5. Weight of filter paper after extraction, g	4.00	4.00
6. Weight of fines, g	2.00	2.00
7. Weight of Bitumen & fines	41.00	42.00
8. Bitumen content in %	4.58	4.50
9. Average Bitumen content in %	4.54	
10. Minimum Bitumen content in %	4.50	

GRADATION FOR DBM AFTER EXTRACTION

(As per MORT&H 500-10,Grading-2)

Sample Location:	Chokkanahalli layout main road	**Date of Sampling:**	15-02-2022
		Date of testing:	15-02-2022
Type of material & Purpose:	DBM	**Oven Dry Wt.(gms):**	857

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
37.50	0.0	0.0	0.00	100.00	100.00
26.50	42.0	42.0	4.90	95.10	90-100
19.00	128.0	170.0	19.84	80.16	71-95
13.20	118.0	288.0	33.61	66.39	56-80
4.750	160.0	448.0	52.28	47.72	38-54
2.360	105.0	553.0	64.53	35.47	28-42
0.300	183.0	736.0	85.88	14.12	7-21
0.075	65.0	801.0	93.47	6.53	2-8
Pan	62.0	863.0			
Total	857.0				

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BBMP, Bangalore - 92

Consultant's Representative

TEJUS
CONSULTANTS

BITUMEN CONTENT AND GRADATION DETERMINATION OF DENSE BITUMINOUS MACADAM MIX

Name of Work	:	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.
Client	:	Bruhat Bengaluru Mahanagara Palike
Consultant	:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	:	Sri.A G Narayana Swamy.
Date of Testing	:	15-02-2022
Type of Mix	:	DBM
Sample I/D	:	DBM-2

DETERMINATION OF BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before extraction, g	894	935
2. Weight of Mixture after extraction, g	855	894
3. Weight of Bitumen	39	41
4. Weight of filter paper before extraction, g	2.00	2.00
5. Weight of filter paper after extraction, g	4.00	4.00
6. Weight of fines, g	2.00	2.00
7. Weight of Bitumen & fines	41.00	43.00
8. Bitumen content in %	4.59	4.60
9. Average Bitumen content in %	4.59	
10. Minimum Bitumen content in %	4.50	

GRADATION FOR DBM AFTER EXTRACTION

(As per MORT&H 500-10,Grading-2)

Sample Location:	Chokkanahalli layout main road	**Date of Sampling:**	15-02-2022
		Date of testing:	15-02-2022
Type of material & Purpose:	DBM	**Oven Dry Wt.(gms):**	855

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
37.50	0.0	0.0	0.00	100.00	100.00
26.50	42.0	42.0	4.91	95.09	90-100
19.00	128.0	170.0	19.88	80.12	71-95
13.20	118.0	288.0	33.68	66.32	56-80
4.750	160.0	448.0	52.40	47.60	38-54
2.360	105.0	553.0	64.68	35.32	28-42
0.300	183.0	736.0	86.08	13.92	7-21
0.075	65.0	801.0	93.68	6.32	2-8
Pan	62.0	863.0			
Total	855.0				

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Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

Consultant's Representative

TEJUS
CONSULTANTS

DETERMINATION OF RATE OF SPREAD TACK COAT				
Name of Work :	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.			
Client :	BRUHAT BANGALORE MAHANAGARA PALIKE			
Consultant :	M/s Tejus Consultants			
Contractor :	Sri.A G Narayana Swamy.			
Date of Testing :	15-02-2022			
Type of Mix :	Tack coat			
Sample I/D :	1			
Location :	Chokkanahalli layout main road			
Determination	**Unit**	**Test No**		
		1	2	3
Loacation	**Chainage**	**@168**	**@215**	**@374**
Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30	0.30 x .30
Area of Plate (a)	Sq.mtr	0.09	0.09	0.09
Initial Wt of empty Plate (b)	Kg	0.780	0.820	0.778
Final weight of plate after application of tack Coat (c)	Kg	0.803	0.843	0.801
Weight of tack Coat (d=c-b)	Kg	0.023	0.023	0.023
Rate of spread of tack coat	Kg/sq.m	0.253	0.252	0.254
Average	Kg/sq.m	0.253		
Specified Limit	Kg/sq.m	**0.250 Kg/sq.m**		

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TEJUS
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DETERMINATION OF RATE OF SPREAD TACK COAT				
Name of Work :	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.			
Client :	BRUHAT BANGALORE MAHANAGARA PALIKE			
Consultant :	M/s Tejus Consultants			
Contractor :	Sri.A G Narayana Swamy.			
Date of Testing :	15-02-2022			
Type of Mix :	Tack coat			
Sample I/D :	2			
Location :	Chokkanahalli layout main road			
Determination	**Unit**	**Test No**		
		1	2	3
Loacation	**Chainage**	**@452**	**@526**	**Temple Side Road'@93**
Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30	0.30 x .30
Area of Plate (a)	Sq.mtr	0.09	0.09	0.09
Initial Wt of empty Plate (b)	Kg	0.788	0.805	0.778
Final weight of plate after application of tack Coat (c)	Kg	0.811	0.828	0.801
Weight of tack Coat (d=c-b)	Kg	0.023	0.023	0.023
Rate of spread of tack coat	Kg/sq.m	0.250	0.252	0.253
Average	Kg/sq.m	0.252		
Specified Limit	Kg/sq.m	**0.250 Kg/sq.m**		

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Yelahanka Zone
BBMP, Bangalore - 92

Consultant's Representative

TEJUS
CONSULTANTS

BITUMEN CONTENT AND GRADATION DETERMINATION OF BITUMINOUS CONCRETE MIX		
Name of Work	:	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.
Client	:	Bruhat Bengaluru Mahanagara Palike
Consultant	:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	:	Sri.A G Narayana Swamy.
Date of Testing	:	16-02-2022
Type of Mix	:	BC
Sample I/D	:	BC1

DETERMINATION OF BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before extraction, g	899	951
2. Weight of Mixture after extraction, g	851	901
3. Weight of Bitumen	48	50
4. Weight of filter paper before extraction, g	2.00	2.15
5. Weight of filter paper after extraction, g	4.10	4.00
6. Weight of fines, g	2.10	1.85
7. Weight of Bitumen & fines	50.10	51.85
8. Bitumen content in %	5.57	5.45
9. Average Bitumen content in %	**5.51**	
10. Minimum Bitumen content in %	**5.40**	

GRADATION FOR BC AFTER EXTRACTION

(As per MORT&H 500-18,Grading-2)

Sample Location:	Chokkanahalli layout main road	Date of Sampling:	**16-02-2022**
		Date of testing:	**16-02-2022**
Type of material & Purpose:	BC	Oven Dry Wt.(gms):	851.0

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
19.00	0	0	0.00	100.00	100.00
13.20	84	84.0	9.87	90.13	79 - 100
9.50	122	206.0	24.21	75.79	71 - 95
4.75	102	308.0	36.19	63.81	53 - 71
2.360	112	420.0	49.35	50.65	42 - 58
1.180	105	525.0	61.69	38.31	34 - 48
0.600	75	600.0	70.51	29.49	26 - 38
0.300	78	678.0	79.67	20.33	18 - 28
0.150	49	727.0	85.43	14.57	12 - 20
0.075	68	795.0	93.42	6.58	4 - 10
Pan	56.0	851.0			
Total	851.0				

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TEJUS
CONSULTANTS

BITUMEN CONTENT AND GRADATION DETERMINATION OF BITUMINOUS CONCRETE MIX

Name of Work	:	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.
Client	:	Bruhat Bengaluru Mahanagara Palike
Consultant	:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	:	Sri.A G Narayana Swamy.
Date of Testing	:	16-02-2022
Type of Mix	:	BC
Sample I/D	:	BC1

DETERMINATION OF BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before extraction, g	899	951
2. Weight of Mixture after extraction, g	851	901
3. Weight of Bitumen	48	50
4. Weight of filter paper before extraction, g	2.00	2.15
5. Weight of filter paper after extraction, g	4.10	4.00
6. Weight of fines, g	2.10	1.85
7. Weight of Bitumen & fines	50.10	51.85
8. Bitumen content in %	5.57	5.45
9. Average Bitumen content in %	**5.51**	
10. Minimum Bitumen content in %	**5.40**	

GRADATION FOR BC AFTER EXTRACTION

(As per MORT&H 500-18,Grading-2)

Sample Location:	Chokkanahalli layout main road	Date of Sampling:	**16-02-2022**
		Date of testing:	**16-02-2022**
Type of material & Purpose:	BC	Oven Dry Wt.(gms):	851.0

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
19.00	0	0	0.00	100.00	100.00
13.20	84	84.0	9.87	90.13	79 - 100
9.50	122	206.0	24.21	75.79	71 - 95
4.75	102	308.0	36.19	63.81	53 - 71
2.360	112	420.0	49.35	50.65	42 - 58
1.180	105	525.0	61.69	38.31	34 - 48
0.600	75	600.0	70.51	29.49	26 - 38
0.300	78	678.0	79.67	20.33	18 - 28
0.150	49	727.0	85.43	14.57	12 - 20
0.075	68	795.0	93.42	6.58	4 - 10
Pan	56.0	851.0			
Total	851.0				

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BBMP, Bangalore 92

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TEJUS
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BITUMEN CONTENT AND GRADATION DETERMINATION OF BITUMINOUS CONCRETE MIX

Name of Work	:	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.
Client	:	Bruhat Bengaluru Mahanagara Palike
Consultant	:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	:	Sri.A G Narayana Swamy.
Date of Testing	:	16-02-2022
Type of Mix	:	BC
Sample I/D	:	BC2

DETERMINATION OF BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before extraction, g	895	955
2. Weight of Mixture after extraction, g	848	901
3. Weight of Bitumen	47	54
4. Weight of filter paper before extraction, g	2.00	2.15
5. Weight of filter paper after extraction, g	4.10	4.00
6. Weight of fines, g	2.10	1.85
7. Weight of Bitumen & fines	49.10	55.85
8. Bitumen content in %	5.49	5.85
9. Average Bitumen content in %	**5.67**	
10. Minimum Bitumen content in %	**5.40**	

GRADATION FOR BC AFTER EXTRACTION
(As per MORT&H 500-18,Grading-2)

Sample Location:	Chokkanahalli layout main road	Date of Sampling:	**16-02-2022**
		Date of testing:	**16-02-2022**
Type of material & Purpose:	BC	Oven Dry Wt.(gms):	848.0

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
19.00	0	0	0.00	100.00	100.00
13.20	84	84.0	9.91	90.09	79 - 100
9.50	122	206.0	24.29	75.71	71 - 95
4.75	102	308.0	36.32	63.68	53 - 71
2.360	112	420.0	49.53	50.47	42 - 58
1.180	105	525.0	61.91	38.09	34 - 48
0.600	75	600.0	70.75	29.25	26 - 38
0.300	78	678.0	79.95	20.05	18 - 28
0.150	49	727.0	85.73	14.27	12 - 20
0.075	68	795.0	93.75	6.25	4 - 10
Pan	53.0	848.0			
Total	848.0				

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Consultant's Representative

TEJUS CONSULTANTS

DETERMINATION OF RATE OF SPREAD TACK COAT

Name of Work :	Developments works to be under taken in Ward No.05 of BBMP around Solid Waste Disposal Processing units Bellahalli, Bagaluru and Kattigenahalli Byatarayanapura Constituency.
Client :	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant :	M/s Tejus Consultants
Contractor :	Sri.A G Narayana Swamy.
Date of Testing :	16-02-2022
Type of Mix :	Tack coat
Sample I/D :	2
Location :	Chokkanahalli layout main road

Determination	**Unit**	**Test No**		
		1	**2**	**3**
Location :	**Chainage**	**@458**	**@602**	**Temple Side Road'@66**
Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30	0.30 x .30
Area of Plate (a)	Sq.mtr	0.09	0.09	0.09
Initial Wt of empty Plate (b)	Kg	0.780	0.794	0.806
Final weight of plate after application of tack Coat (c)	Kg	0.803	0.817	0.829
Weight of tack Coat (d=c-b)	Kg	0.023	0.023	0.023
Rate of spread of tack coat	Kg/sq.m	0.253	0.253	0.254
Average	Kg/sq.m	0.254		
Specified Limit	Kg/sq.m	**0.250 Kg/sq.m**		

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